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3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER	
LIGHTFOOT, ELENA TSOY	

ART UNIT	PAPER NUMBER
1792	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com

Office Action Summary	Application No.	Applicant(s)	
	09/822,651	TUMAN ET AL.	
	Examiner	Art Unit	
	Elena Tsoy Lightfoot	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *71-79,81-83,85-90 and 92-115* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *71-79,81-83,85-90 and 92-115* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

Amendment filed on April 3, 2009 has been entered. Claims 71-79, 81-83, 85-90, 92-115 are pending in the application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Rejection of claims 71-79, 81-83, 85-90, and 92-112 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement has been withdrawn due to amendment.

3. Rejection of claims 71-79, 81-83, 85-90, and 92-112 under 35 U.S.C. 112, first paragraph, as failing to comply with the *enablement* requirement has been withdrawn due to amendment.

4. Claims 113-115 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "the second major side of the fibrous web is ***at least*** *partially exposed*" means that "the polymer forming the polymeric regions does not extend *through* the substrate" (independent claims 113-115) wherein the substrate is a **fibrous** web (Claims 113-115) of e.g. **non-woven fibrous** material (Claims 114-115), was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention. The Applicants' specification discloses that the source 53 deposits the **melted** polymeric material on the web 50 as discrete portions 55; the portions 55 are simultaneously *pressed* into the cavities and fused to the web 50, and a casting roll 58 provides **pressure** against the back side of the web 50 as the polymeric material cools, thereby assisting in **pressing** the polymeric material into the cavities in tooled surface 57 of tool roll 56 and fusing of the polymeric material to the web 50 (See Fig. 5 and page 8 , lines 4-7). However, the Applicants' specification discloses ***nowhere*** that the melted polymer does not go *through* the **fibrous** material under the ***pressure*** of roll 58 against the roll 57 such that the second major side of the fibrous web is partially or fully exposed.

5. Claims 113-115 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the *enablement* requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation limitation "the second major side of the fibrous web is ***at least*** *partially exposed*" means that "the polymer forming the polymeric regions does not extend *through* the substrate" (independent claims 113-115), wherein the substrate is a **fibrous** web (Claims 113-115) of e.g. **non-woven fibrous** material (Claims 114-115), was not described in the specification in such a way as to enable one skilled in the art to prevent the melted polymer to go *through* the **fibrous** material, the **woven** web or the **knit** web under the ***pressure*** of roll 58 against the roll 57 such that the second major side of the fibrous web is partially or fully exposed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 71-79, 81-83, 85-90, 92-108, and 112 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wessels et al (US 5,669,120).

Wessels et al discloses a mechanical fastener for the use in diapers (See column 2, line 4) formed from a web construction comprising: an *elastic* pile core sheet S ***embedded*** in a polymer resin 4a (claimed single layer substrate of *nonwoven* web) as shown in Figs. 4A or Fig. 4B, containing a plurality of discrete polymeric regions having loop regions S2 and a plurality of hook elements 4b fused to one (first) side of the resin 4a; (See Figs. 4B, 4F). The plurality of hooks are oriented at angle that is not normal to web plane in the same direction (See Fig. 4E) or

multiple directions (See column 10, lines 30-32). The web construction may be of **composite** structure such as shown in Figs. 4B, 4D and 4F. The hook elements may be of **hook-** or **mushroom**-shape engaging elements (See column 1, lines 19-20).

Note that hook regions having hook elements 4a extending from the substrate 4a/S, as shown in Fig. 4, is entirely bordered by the first major side of the substrate, as required by claimed invention.

As to elastic substrate, the web construction of a structure shown at Fig. 4A is elastic because a pile core sheet S is of a coarse **woven** or **knit** cloth with great flexibility (See column 6, lines 32-39).

As to claims 83, 106, the stems are oriented at angles that are not normal to localized plane (See Fig. 4E).

As to claims 85, 86, 107, 108, the individual hook elements 4b are oriented in a common direction in the same row and are oriented in opposite direction in adjacent rows. The reinforcing ribs 4c, which may be omitted, are effective in preventing the hook elements 4b from falling sideways. In this invention, adjacent hook elements 4b in the same row may be oriented alternately in opposite directions. (See column 10, lines 27-38).

As to claims 95, 112, It is the Examiner's position that the web S2 ***embedded*** in a polymer resin 4a reads on *single* layer substrate of *composite* nonwoven web comprising a film layer 4a.

9. Claims 78, 83, 85-90, 92, 93, 95, 96, 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120, as applied above, further in view of Allen et al (US 5,547,531).

Wessels et al fails to teach that the structure of film 4B may be made by joining nonwoven fibrous web and elastic backing. However, Allen et al teaches that a composite female component of the fastening device for the use in diapers (See column 4, lines 6-7) comprising a **non-woven fibrous** web joined to an *elastic backing* provides a low cost loop fastening material instead of conventional knit or woven fabric (See Figs. 1, 4; column 1, lines 68; column 2, lines 1-24; column 3, lines 6-12; column 5, lines 46-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed a web of Wessels et al using a composite female component comprising a non-woven fibrous web joined to an elastic backing with the expectation of providing the desired low cost, as taught by Allen et al.

10. Claims 78, 83, 85-90, 92, 93, 95, 96, 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120 in view of Allen et al '531, as applied above, and further in view of Provost et al (US 5606781).

Wessels et al in view of Allen et al are applied here for the same reasons as above. Provost et al are applied here as **evidence** to show that it is well known in the art that hook-like coupling elements can be formed by clipping side portions of synthetic fiber monofilament loops which are woven into a substrate cloth as subsidiary warps in the weaving process to form upstanding loops on the surface of the substrate cloth, or alternatively, the **hooks** can be molded integrally with a base 406 using a synthetic resin material, or can be ***co-extruded*** with the base using a cross head die; or the hook elements on a thin base may be ***laminated*** to a different sheet form substrate.

11. Claims 109-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120.

Wessels et al further teaches that pile woven or knit core sheet (hereinafter called "the pile core sheet") S drawn from a roll is introduced to the gap between the upper arcuate surface 1a of the injection die 1 and the circumferential surface of the die wheel 2 (See column 6, lines 12-15). The pile core sheet S has a number of pile regions S1 of a predetermined width and a number of coarse mesh regions S2 of a predetermined width arranged alternately in the transverse direction as shown in FIG. 3. The foundation structure of each pile region S1 is woven or knitted of fiber at a high density so as not to allow molten resin 4 to pass through, and the coarse mesh region S2 is devoid of piles and is woven or knitted of fiber so as to have pores for the passage of molten resin 4 (See column 6, lines 25-33). Wessels et al teaches that since the pile core sheet S is **embedded** in the substrate sheet 4a eccentrically toward the hook-element-surface side, it is possible to give the substrate sheet 4a adequate toughness both longitudinally and transversely so that, no stretch occurs during ***cutting*** under tension, and no breakage of a sewing needle occurs during sewing (See column 8, lines 18-27). Further, since the pile core sheet is manufactured by weaving or knitting, it is possible to change **the design** of the pile core sheet in arrangement and orientation of piles and to determine the size, shape or **arrangement** of hook elements optionally. It is accordingly possible to cope instantly with ***various requirements*** for the surface fastener in which hook and loop elements coexist. (See column 10, lines 54-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made regions S1 and hook regions in Wessels et al of *any* shape depending on particular use of a final product.

Wessels et al does not explicitly disclose *circular* shaped fasteners. However, it was well known in the art to use *circular* shaped fasteners before the Applicants invention*. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to have made regions S1 and hook regions in Wessels et al of a *circular* shape.

Moreover, it is held that a circular shape is an obvious choice of design.

It is the Examiner's position that it would be within the level of ordinary engineering skill to make circular shaped hooks and loops.

12. Claims 109-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al '120, as applied above, and further in view of Shoemaker (US 4903874)*.

Wessels et al does not explicitly disclose *circular* shaped fasteners. However, Shoemaker teaches that mating **circular** VELCRO hook and loop pads may be used as fasteners (See column 4, lines 5-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made regions S1 and hook regions in Wessels et al of a *circular* shape since Shoemaker teaches that mating **circular** hook and loop pads may be used as fasteners, and Wessels et al does not limit its teaching to particular shapes.

Response to Arguments

Applicants' arguments filed April 3, 2009 have been fully considered but they are not persuasive.

(A) Applicants argue that no part of the disclosure of Wessels et al. teaches or suggests that the apparatus and methods disclosed therein could be used to provide the discrete patches (or substantially circular patches) recited in each of independent claims 109, 111, 114, and 115. A change from the continuous hook regions of Wessels et al. to the discrete patches of the claimed invention would require a change in basic operating principles of the continuous injection molding and continuous extrusion apparatuses and methods. Such a change would be contrary to a stated object of Wessels et al.: "using a simple molding apparatus without any reconstruction" (col. 2, lines 58-59).

The Examiner respectfully disagrees with this argument. First of all, Wessels et al. teaches or suggests methods for providing the discrete hook and loop regions (patches) as explicitly shown in Figs. 4A-4F, 7 and 8. Wessels et al does not even describe apparatus for producing various arrangements of hook and loop regions because it is within the level of ordinary engineering skill to make various arrangements of hooks and loops.

(B) Applicants argue that since Wessels et al. teaches away from web constructions having "a discrete patch having a perimeter that is entirely bordered by the first major side of the substrate", obviousness cannot be proven merely by stating that the continuous stripes of polymer taught by Wessels et al. could have been modified as a matter of design choice.

The Examiner respectfully disagrees with this argument. First of all, Wessels et al does teach a web constructions having "a discrete patch having a perimeter that is entirely bordered by the first major side of the substrate". For example, Fig. 4 of Wessels et al shows hook regions having hook elements 4a extending from the substrate 4a/S, that is entirely bordered by the first major side of the substrate, as required by claimed invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.
Primary Examiner
Art Unit 1792

May 22, 2009

/Elena Tsoy Lightfoot/